YUDIN, B.A., Cand Geol Min Sci — (diss) "The Tsaginskiy Massive of gabbro-labrodorite and its related mineralization. (Central part Kola Kola Kigien of the Kolaksy Peninsula)." Kirovsk, 1959, 21 pp (Acad Sci USSR. Kolaksy Affiliate in S.M. Kirov) 200 copies (KL, 36-59, 113)

- 25 -

VOL'PSON, F.I.; LUKIN, L.I.; DYUKOV, A.I.; KUSHNAREV, I.P.; PEK, A.V.;

RYBALCY, B.L.; SOHYUSHKIN, Ye.P.; KHOROSHILOV, L.V.; CHRRNYSHEV,

V.F.; BIRYUKOV, V.I.; GARMASH, A.A.; DHUZHININ, A.V.; KARAMYAN,

K.A.; KUZMETSOV, K.P.; LOZOVSKIY, V.I.; MALINOVSKIY, Ye.P.;

NEVSKIY, V.A.; PAVLOV, N.V.; ROMENSON, B.M.; SAMONOV, I.Z.;

SIDORENKO, A.V. [deceased]; SOPKO, P.F.; CHEGLOKOV, S.V.; YUDIN,

B.A.; KREITER, V.M., doktor geologo-mineral.nauk; retsenzent; ...

KOTLIAR, V.N., doktor geologo-mineral.nauk, retsenzent; GRUSHEVOY,

V.G.; doktor geologo-mineral.nauk, retsenzent; NAKOVNIK, N.I., doktor

geologo-mineral.nauk, retsenzent; KUREK, H.N., doktor geologo-mineral.

nauk, retsenzent; LIOGEN'KIY, S.N., retsenzent; SHATALOV, Ye.T., doktor

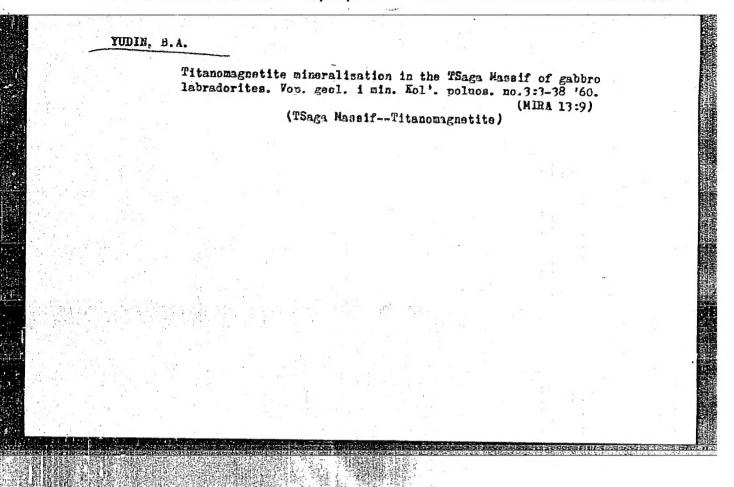
geologo-mineral.nauk, red.; KRISTAL'NYY, B.V., red.; SERGEYEVA, N.A.,

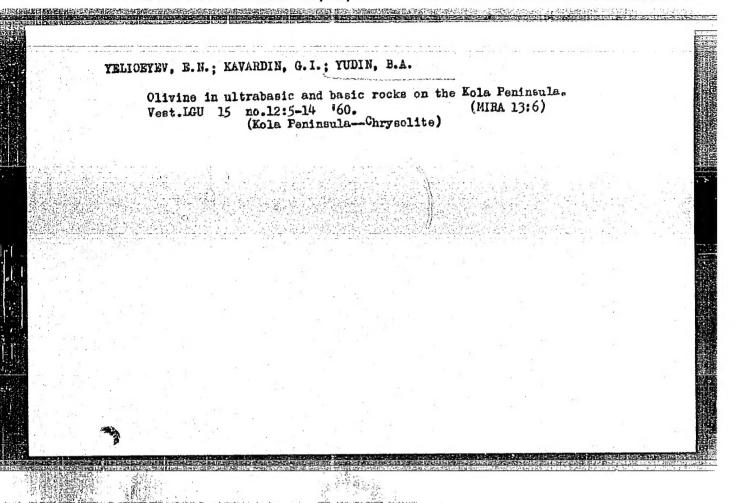
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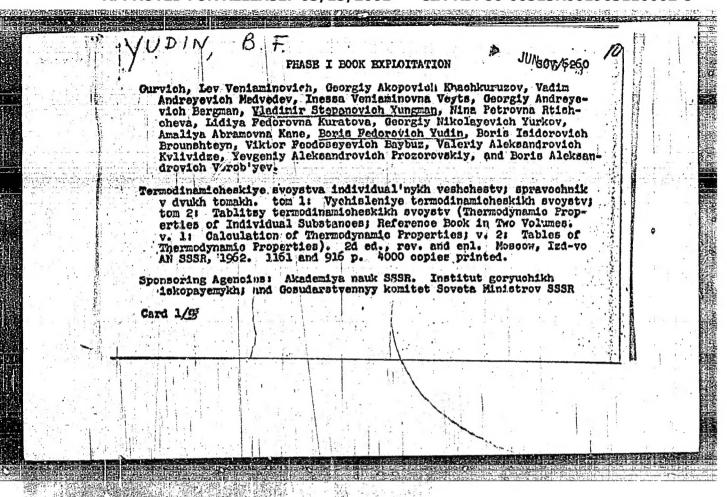
[Basic problems and methods of studying structures of ore provinces (Continued on next card)

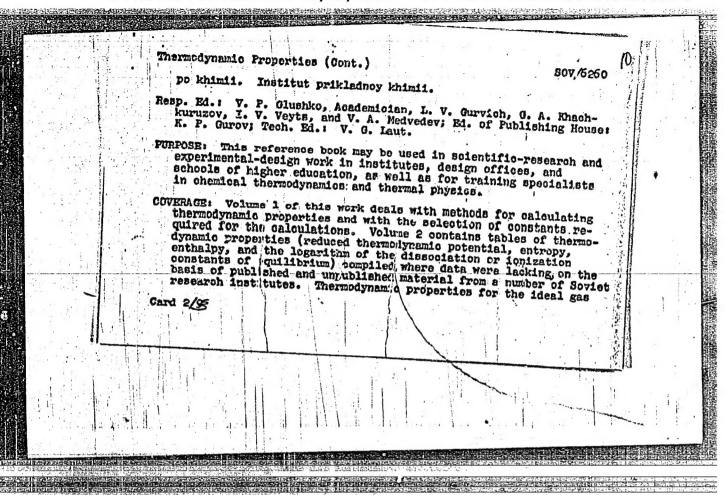
VGL'FSON, F.1.—(continued) Gard 2.
and deposits] Osnovnye voprosy i metody izucheniia struktur
rudnykh polei i mestorozhdenii. Hoskva, Gos.nauchno-tekhn.izd-vo
lit-ry po geol. i okhrane nedr, 1960. 623 p.

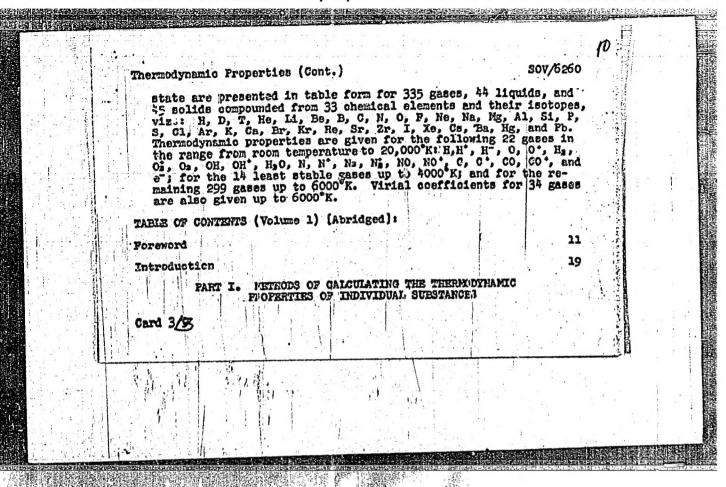
1. Akademiya nauk SSSR. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii. 2. Moskovskiy institut tsvetnykh metallov i zolota (for Dyukov, Biryukov, Druzhinin, Kuznetsov). 3. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov AH SSSR (for Germash). 4. Akademiya nauk Armyanskoy SSR (for Karamyan). 5. Baleyzoloto (for Sidorenko). 6. Institut geologii rudnykh mestorozhdeniy, patrografii, mineralogii i geokhimii AH SSSR (for Malinovskiy, Nevskiy, Pavlov, Chernyshev). 7. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze (for Ronenson). 8. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya (for Samonev). 9. Voronezhskiy universitet (for Sopko). 10. Kol'skiy filial AN SSSR (for Yudin). (Ore deposits)











Yudin, B.F.

USSR/General and Special Zoology. Insects. Injurious Insects and Ticks. Posts of Coreal Crops

Abs Jour : Ref Zhur - Blol., No 11, 1958, No 49591

Author : Yudin B.F.

Title : The Stom Flea - a Corn Pest in Central Ural

Orig Pub : Zashchita rast. ot vredit. i boloznoy, 1957, No 4,

58

Abstract: In Central Ural, the damage of corn by stem flea larvae was of a mass nature in dry and het weather in the second half of May and in June of 1955.

Especially great was the damage (up to 75%) to hethouse plants which were grown in poat-humus pots. The damage was in the form of openings situated in straight rows across the leaves. The openings in each row were of the same size and form. As the leaves grow in size, the openings increased; senetimes the leaves bent and their

Card : 1/1 upper part died. -- A.P. Adrianov

USSR/Cultivated Plants - Fodders.

Abs Jour

: Ref Zhur Biol., No 18, 1958, 82403

Author

: Yudin, B.F!

Inst

: All-Union Plant Cultivation Institute

Title

: Growing Corn for Green Fodder in the Middle Urals

Orig Pub

: Vestn. s.-kh. nauki, 1957, No 9, 113-116

Abstract

: Results of the trials of Sverdlavskiy Affiliate of the All-Union Plant Celtivation Institute for 1955 are cited In corn plantings, heavy (45 x 45 contineters with 3 plants to a bunch) in comparison with the thin ones (70 x 70 centimeters with 2 plants to a bunch), the yield increased by 147% with early harvesting (26 of July ). With harvesting after a month, this increase comprised 47%.

Card 1/1

USSR/Cultivated Plants. Cereals.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 77646.

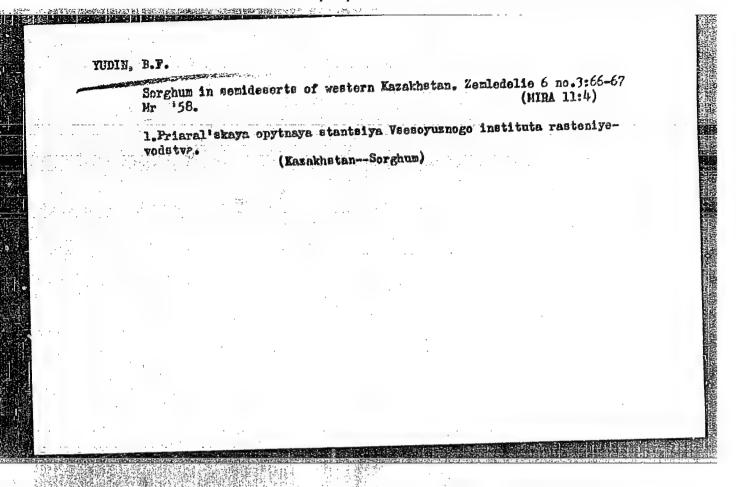
Author : Yudin, B.; Berkinbaev, F.
Inst :
Title : Sorghum in the Desert Regions of Priaral'ye.

Orig Pub: S. kh. Kazakhstana, 1957, No 12, 17-20.

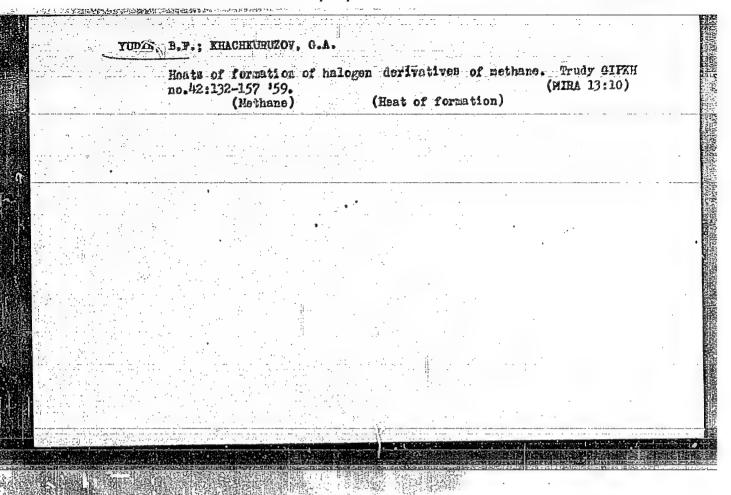
Abstract: No abstract.

MUDIN, B. F., Cand Agr Sci — (diss) "Agrobiological study of corn under conditions of the minimum Urals Mountains." Len, 1958. 19 pp (All-Union Order of Lenin Acad Agr Sci im V. I. Lenin, All-Union Inst of Plant Cultivation), 120 copies (KL, 15-58, 118)

-69-



# Certain features in the flowering of corn in the Central Urals. Bot. zhur. 43 no.6:861-867 Je '58. (MIRA 11:7) 1. Vaesoyuznyy institut rasteniyavodstva, Leningrad. (Sverdlovsk Province--Corn (Maize)) (Plants, Flowering of)



29412 S/081/61/000/017/007/166 B102/B138

54800

AUTHOR:

Yudin, B. F.

TITLE:

The "Mendeleyev rule" and its application in the calculation of physicochemical quantities. Communication II. Entropies, specific heats, temperatures and heats of phase transitions, critical temperatures, succession in Mendeleyev's periodic system

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 17, 1961, 45, abstract 175312 (Sb. tr. Gos, in-ta prikl. khimil, no. 46, 1960, 115 - 125)

TEXT: On the basis of experimental data it is shown that "Mendeleyev's rule" may be applied, with appropriate corrections, for the approximate calculation of entropies, specific heats, temperatures and heats of phase transitions, and the critical temperatures of various compounds. Correction values have been derived for each case, together with the degree of error limit of applicability. The entropies, heats, boiling and critical temperatures are calculated for several compounds for which no experimental data

Card 1/2

The "Mendeleyev rule" and its ...

294<u>1</u>2 \$/081/61/000/017/007/166 B102/B138

are as yet known. It is stated that "Mendeleyev's rule" can be used to calculate entropies and specific heats of compounds taken according to their position on the periodic table. For Communication I, cf. RZhKhim, 165318. [Abstracter's note: Complete translation.]

X

Card 2/2

\$/137/61/000/007/001/072 A060/A101

18.1210 AUTHOR:

Yudin, B. F.

TITLE:

Thermodynamic properties of the components of cryolite-alumina smelt

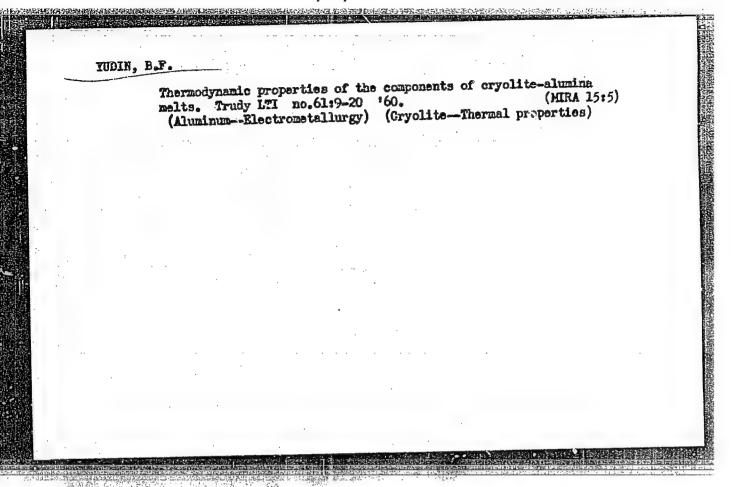
FERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1961, 3, abstract 7A23 ("Tr. Leningr. tekhnol, in-ta im, Lensoveta", 1960, no. 61, 9-20)

The analysis of the known literature sources for the choice of initial data for calculating the thermodynamic functions of the components of oryolite-alumina smelt is carried out. A table of thermodynamic components of cryolite-alumina smelt from 298.15 to 1,400 K is constructed. There are 56 references.

T. Kolesníkova

[Abstracter's note: Complete translation]

Card 1/1



GURVICH, Lev Veniaminovich, kand. khim. nauk; KHACHKURUZOV, Georgiy Akopovich, kand. khim. nauk; NEDVEDEV, Vadin Andreyevich, kand. khim. nauk; VEYTS, Inessa Veniaminovna, kand. khim. nauk; BERGMAN, Georgiy Andreyevich; YUNCAN, Vladimir Stepanovich; RTISHCHEVA, Nina Petrovne; KURATOVA, Lidiya Fedorovna; YURKOV, Georgiy Nikolayevich; KANE, Amaliya Abramovna; YUDIN, Boris Fedorovich; BRCUNSHTEYN, Boris Isidorovich; BAYBUZ, Viktor Feodoseyevich; KVLIVIDZE, Valeriy Aleksandrovich; FROZOROVSKIY, Yevgeniy Aleksandrovich; VOROB'YEV, Boris Aleksandrovich; GERASIMOV, Ya.I., retsenzeng; SKURATOV, S.M., prof., retsenzent; GLUSHKO, V.P., akad., otv.red.; KHACHKURUZOV, G.A., red.; GUROV, K.P., red.izd-va; LAUT, V.G., tokhn.red.

[Thermodynamic properties of individual substances; reference guide in two volumes] Termodinamicheskie svoistva individual'-nykh veshchestv; spravochnik v dvukh tomakh. Izd.2., polnost'iu perer. i rasshirennoe. Pod red. V.P.Glushko (otv. red.) i dr. Moskva, Izd-vo Akad. nauk SSSR. Vol.1. (Calculation of thermodynamic properties] Vychislenie termodinamicheskikh svoistv. 1962. 1161 p. Vol.2. [Tables of thermodynamic properties] Tablitsy termodinamicheskikh svoistv. 1962. 916 p. (MIRA 15:10)

(Continued on next card)

Thermodynami Izv. vys. uc	c properties of heb, zav.; tsvet	melts in the sys	ten AIF3 - 1 61 '62.	MIRA 15;1	10)
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# MASHOVETS, V.P.; YUDIN, B.F.

Thermodynamics of the interaction between AlP3, Na3AlP6 and NaAlP4 with water vapor. Izv. vys. ucheb. zav.; tsvet. met. 5 no.41 (MIRA 16:5)

1. Leningradskiy tekhnologicheskiy institut, kafedra fizicheskoy khimii.

(Aluminum fluoride—Thermodynamic properties)
(Cryolite—Thermodynamic properties)
(Vapor pressure)

YUDIN, B.F.; MASHOVETS, V.P.

Molecular state of melts of the system AlF3 - HaF - Al<sub>2</sub>O<sub>3</sub>. Zhur.prikl,khim. 36 no.6:1244-1250 Je '63. (MIRA 16:8)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.
(Cryolite—Thermodynamic properties) (Aluminum oxide)

Effect of magi	anical break orn seeds. D	ca of the policy of the case o	R 163 no.5	1253-125	5 Ag 465 (MIRA 18	(8:	
1. Submitted S	September 4,	1964.					
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L 06292-67 PAT(M)/EMP(a)/EMP(t)/ETI IJP(c) AT/WH/MD/WW/JW/JG/GD
ACC NR: AT6027147 (A) SOURCE CODE: UR/0009/65/000/000/0203/0208

AUTHOR: Voronin, N. I.; Makarova, N. L.; Yudin, B. F.

61

ORG: All-Union Institute of Refractories (Vsesoyuznyy institut ogneuporov)

13+1

TITLE: Heat of formation of silicon carbide and roducts of its vaporization

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Issledovaniya v oblasti khimii silikatov i okislov (Studies in the field of chemistry of silicates and oxides). Moscow, Izd-vo Nauka, 1965, 203-208

TOPIC TAGS: heat of formation, silicon carbide

ABSTRACT: The study was undertaken in order to determine the heats of formation of SiC and products of its vaporization from vapor pressure data. Langmuir's method was used to determine the total vapor pressure over SiC and partial pressures of Si, Si2C and SiC2 at temperatures of 2113, 2193 and 2273 ck. This method involves the use of the following formula for the equilibrium pressure of the substance during its vaporization from an open surface:

 $P = \frac{m}{St} \sqrt{\frac{2\pi HT}{M}}$ 

The results of the calculations are shown in Table 1. The data are compared with those reported in the literature. Orig. art. has: 4 tables and 4 formulas

Card 1/2

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•	Table Carbid	1. Heats of Formation of Silicon le and Products of Its Vaporization	
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YUDIN, B.F.; KHVATOVA, M.N.

Study of polyploidy series in corn. Izv. SO AN SESR no.4 Ser. biol.-med.nauk no.1:87-93 '65. (MIRA 18:8)

1. Biologicheskiy institut Sibirskogo otdeleniya AN SSSR, Novosibirsk.

ACC INRI A	5032944 SOURCE CODE: UR/0131/66/000/010/0050/0055
AUTHOR: G	copyanov, V. M.; Yudin, B. F.; Avgustinik, A. I.
ORG: All-	mion Institute of Refractories (Vsesoyuznyy -institut ogneuporov)
TITLE: Hi	gh-temperature reactions in the TiC-ZrO2 system
and the second	gneupory, no. 10, 1966, 50-55
research,	refractory compound, titanium carbide, zirconia, high temperature solid state, reaction mechanism
within the dynamic an the temper of one or composition h figures,	Solid-state chemical reactions in the TiC-ZrO <sub>2</sub> system have been studied 1700-2400 K range in vacuum. Correlation of experimental data with there alysis data indicated that only three reactions occur in the system within ature range studied. The direction of the chemical process and predominant another of the three reactions depend on temperature, gaseous atmosphere in, and the ratio of components in the starting mixture. Orig. art. has:  3 tables, and 13 equations.
SUB GODE:	11/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 001/ ATD PRESS: 509
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ACC NR: AP60110	012 SOURCE CODE: UR/0080/66/039/003/0537	•
ALIMPIONE	300ACE CODE: UR/0080/66/039/003/0537	/nziji.
Author: Yudin,	B. F.; Karklit. A. K	
ORG: All-Union	Institute of Refracturies (Vansov very	
	namics of vaporization of metro	
	prikladnoy khimii, v. 39, no. 3, 1966, 537-544	Į.
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oxide, zirconium	rmodynamic calculation, vaporization, heat of vaporization, a compound, silicon dioxide, magnesium oxide, calcum oxide	luminum
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Al <sub>2</sub> 0 <sub>3</sub> was studied	hermodynamics of vaporization of SiO <sub>2</sub> (quartz), ZrO <sub>2</sub> , MgO, Cadd. The heat of vaporization of SiO <sub>2</sub> at the boiling point. IF	O, and
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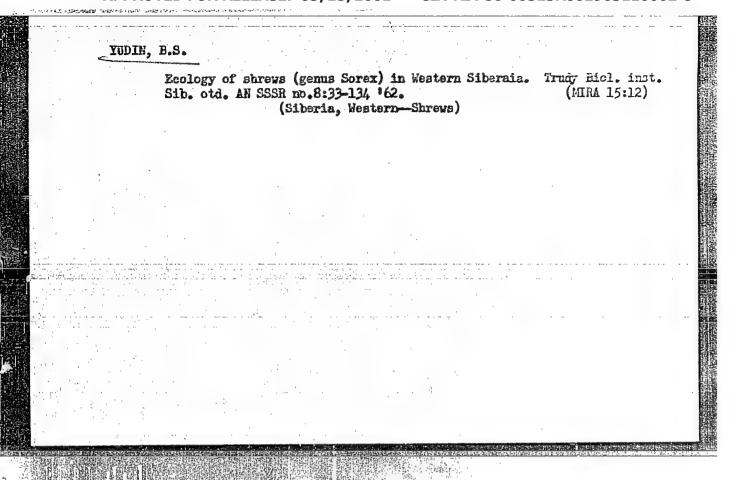
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accurate. The heat of vaporization of Al <sub>2</sub> O <sub>3</sub> at the boiling point was calculated accurate. The heat of vaporization products of Al <sub>2</sub> O <sub>3</sub> at the boiling point was calculated accurate. The main vaporization products of Al <sub>2</sub> O <sub>3</sub> are the boiling point was calculated accurate.	ilated t
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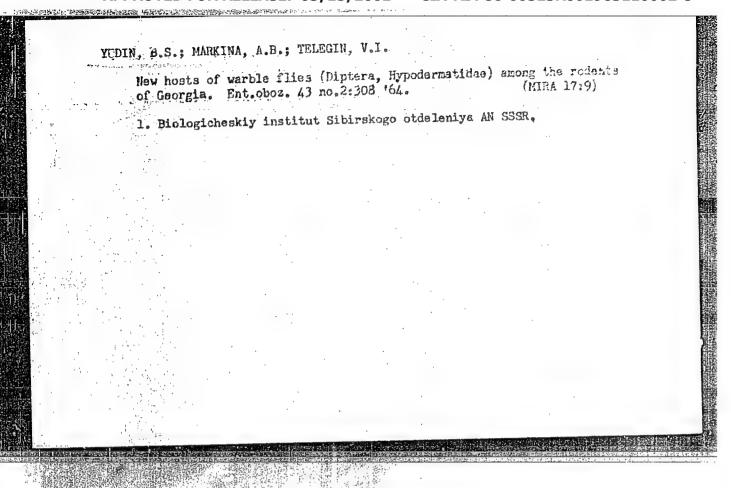
# YUDDI, B.F.

Rapid production of tetraploid corn hybrids. Izv. SO AN SSSR no.8 Ser. biol. med. nauk no.2.15-18 '64 (MIRA 18:1)

1. Biologicheskiy institut Sibirskogo otdeleniya AN SSSR, Novosibirsk.

YUDIN, B. S., Cand Biol Sci (diss) -- "The ecology of Sorex of western Siberia and their practical significance". Tomsk, 1959. 17 pp (Tomsk State U im V. V. Kuybyshev), 150 copies (KL, No 11, 1960, 131)





# "APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963110002-8

KRYLOV, G.V., doktor biol. neuk; GRADOBOYEV, N.D.; YUEP!, B.S.;

KABANOV, N.Ye.

Review and bibliography. Izv. SO AN SSSR no.8 Ser. biol.-med.

(NIRA 1821)

# "APPROVED FOR RELEASE: 03/15/2001

# CIA-RDP86-00513R001963110002-8

VILIPERT, K.I.; PEVZNER, Ya.M., doktor tekhn.nauk; TIKHONOV, A.A., kand.tokhn.nauk; YUDIN, B.V.

Some problems in the statistical analysis of vibrations of a motor vehicle. Avt.prom. 31 no.4:26-29 Ap 165. (MIRA 18:5)

1. TSentral'nyy ordena Trudovogo Krasnogo Znameni nauchno-insledovatel'skiy avtomobil'nyy i avtomotornyy institut.

SEMEROVICH, B., insh.; Yudin, D., insh.; Yatsyk, G., insh.

Industrial teams at the construction of the Kremenchug Hydroelectric Power Station, Sots.trud. 4 no.9;114-116 8 159.

(MIRA 13:1)

1. "Kremenchuggesstroy."

(Kremenchug Hydroelectric Power Station)

GULYAKIN, I.V., prof. doktor biolog. nauk; YUDIN, D.A., kand. sel'skokhoz. nauk; SHKEL', S.Ye., kand. sel'skokhoz. nauk; SIROTAINA, I.A., mladshiy nauchnyy sotrudnik

Efficient use of fertilizers as a means for the intensification of agriculture; results of studies on the systems of the use of fertilizers in field crop rotation on the "Dubki" Experimental and Training Farm. Izv. TSKHA no.5:74-82 '64.

l. Kafedra agrokhimii i biokhimii Moskovskoy ordena Lenina seliskokhozyaystvennoy akademii imeni Timiryazeva.

 YUDIN, D.B

# PHASE I BOOK EXPLOITATION

SOV/4276

- Presnukhin, Lacvid Nikolayevich, Doctor of Technical Sciences, Professor, Lev Aleksandrovich Serebrovskiy, and David Berkevich Yudin
- Osnovy teorii i proyektirovaniya priborov upravleniya (Fundamentals of the Theory and Design of Control Devices) Mosecw, Oborongiz, 1960. 263 p. Errata slip inserted. 10,000 copies printed.
- Ed. (Title page): L.N. Presnukhin, Doctor of Technical Sciences, Professor; Ed. (Inside book):; S.O. Dobrogurskiy, Doctor of Technical Sciences, Professor; Ed. of Publishing House: M.F. Bogomolova; Tech. Ed.: V.I. Oreshkina; Managing Ed.: S.D. Krasil'nikov, Engineer.
- PURPOSE: This is a textbook for students of schools of higher technical education. It may also be useful to engineers and technicians working in industry and in scientific research institutes.
- COVERAGE: The book discusses the theory and practice of designing the fundamental elements of artillery control devices, tracking systems for the continuous measurement of the moving coordinates of a target, differentiating-adjusting devices for the determination of the parameters of target motion, and the adjustment of errors obtained in the process of measuring the moving coordinates of the target. Impact solving methods which reduce to the combined solution Card 1/6

Fundamentals of the Theory and Design of Control Design Of Control Design Of CIA-RDP86-00513R001963110002-8" APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-UUDIDATED ON THE PROPERTY OF THE PR

listic functions and devices for their solution are given. The book was written on the initiative of P.P. Chechulin on the basis of material selected and systematized by the authors. No personalities are mentioned. There are no references.

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#### Foreword

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Coneral Information	
1. Aim and tasks of the course 2. History of the down	
2. History of the development of [artillery] control devices  4. Unit of measurement	
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4. Unit of measurement	E
5. Problem measurement	-
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# PHASE I BOOK EXPLOITATION

BOV/5699

Yudin, D. B., and Ye. G. Gol'shteyn

Zadachi i metody lineynogo programmirovaniya (Problems and Methods of Linear Programming) Moscow, Izd-vo "Sovetskoye radio," 1961. 490 p. Errata slip inserted. 10,000 copies printed.

Eds.: S. M. Kovshovich and N. D. Ivanushko; Tech. Ed.: A. A. Sveshnikov.

FURFOSE: This book is intended for mathematicians, engineers, and economists with a background in higher mathematics.

COVERAGE: The book is said to be the first Soviet attempt to present systematically the theoretical basis, methods, and application of linear programming. Particular attention is given to the foundation and description of computational algorithms leading to calculation schemes which are illustrated by examples. Ch. 1 is concerned with the basic concepts and various interpretations of the problem of linear programming. The first four sections of this chapter are of a rather elementary illustrative character; the following are more rigorous. Ch. 2 deals with various practical questions involving general and particular problems of linear programming. Its purpose is to illustrate methods of formulating economic,

Problems and Methods of Linear Programming

BOV/5599

engineering, military, and other problems in terms of linear programming. Chs. 3 and 4 discuss general methods, their foundation, and corresponding algorithms. The method for the iterative improvement of a plan is described in great detail; duality methods are described concisely. Ch. 5 contains a detailed study of one of the important particular problems of linear programming, the transportation problem. Proofs for some of the statements of Ch. 5 may be found in section 3 of Ch. 6. In Sec. 1.1 of 6 the basic concepts of multidimensional space as used in the book are established and explained. The rest of this chapter deals with the programming not discussed elsewhere in the book are outlined briefly in the Conclusion. The Bibliography lists only the sources actually used in the text. The authors thank Professor A. A. Lyapunov, I. A. Poletayev, L. S. Gurin, S. M. Bovshovich, and V. V. Bokova. There are 69 references: 19 Soviet, 48 English, 1 French, and 1 Finnish.

TABLE OF CONTENTS:

Foreword

3

Ch. 1. Basic Concepts of Linear Programming

- 7

Card 2/9)

s/194/61/000/012/031/097 D201/D303

AUTHORS:

Gol'shteyn, Ye. G. and Yudin, D. B.

TITLE:

A class of problems in planning national economy

PERIODICAL:

Referativnyy zhurnal, Avtomatika i radioeleketronika, no. 12, 1961, 47, abstract 12B301 (V sb. Probl. kibernetiki, no. 5, M., Fizmatgiz, 1961, 165-182).

TEXT: Even the best of current computers cannot cope with the volume of computations required for planning of the national ecolume of computations required for planning of the national economy which requires linear programming. It would, therefore, be expedient to develop special methods for particular problems of linear programming. The consideration of peculiar conditions of a problem can make it possible to reduce substantially the computer problem can make it possible to reduce substantially the computer work in many cases. Several problems in national economy planning work in many cases. Several problems in national economy planning are considered which may be reduced to a single formal analogue. A special method is developed for the purpose of analysis. The A special method is developed for the purpose of analysis. The suggested method of numerical analysis permits a substantial reduction in the number of variables and in problem limitations of

Card 1/2

\$/194/61/000/012/031/097 D201/D303

A class of problems ...

linear programming, together with a reduction in the number of operations required for determining an optimum plan. A special feature of the method being considered is introduction of straightline approximated transport charges. It is shown that the number of operations required for setting up the algorithm for realizing the method exceeds only slightly the number of operations required to solve the transport problem in the same number of variables. The material is presented in the following form: A classical transport problem is set up, together with the modification, taking into account the limitations due to the limited carrying capacity of the transport networks. Two models of production and of one kind of commodity transportation are analyzed. These problems are then made more complex and the problem of planning formulated. General considerations as to the method of solving the problem are given. The algorithm of the problem solution is described. It is shown in conclusion how the problem may be made a more general one, applying to more complicated models and in particular to the model of production and different goods transportation. 3 references. Z Abstractor's note: Complete translation. 7

Card 2/2

AM1033658

BOOK EXPLOITATION

S/

YUdin, David Borisovich; Gol'shteyn, YEvgeniy Grigor'yevich

Linear programming; theory and terminal methods (Lineynoye programmirovaniye; teoriya i konechnyaye metodya). Moscow, Fizmatgiz, 63, 0775 p. illus., biblio., index. 26,000 copies printed.

Series note: Fiziko-matematicheskaya biblioteka

TOPIC TASS: linear programing, convex polyhedral set, duality theory, successive approximation, operations research, finite set

PURPOSE AND COVERAGE: The book contains a detailed exposition of the mathematical theory of linear programming and computational methods which make it possible to find an exact solution of the problem within a finite number of steps. The book is intended for engineers, economists, and mathematicians engaged in applied mathematics. It can also be used by students in mathematics, economics, and engineers ing-economics departments of higher educational institutions.

TABLE OF CONTENTS [abridged]:

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L 18h01-63 EWT(d)/EDS AFFTC/ASD/APGC/IJP(C) Pg-h/Fk-h/Pl-h/Po-h/Pq-h/Pq-h BC S/0103/63/024/007/0921/0928

ACCESSION NR: AP3003739 S/0103/03/024/007/0921/ AUTHOR: Gol'shteyn, Ye. G. (Moscow); Yudin, D. B. (Moscow)

TITLE: Methods for calculating and synthesizing sampled data automatic

systems 1

SOURCE: Avtomatika i telemekhanika, v. 24, no. 7, 1963, 921-928

TOPIC TAGS: automatic system, sampled data

ABSTRACT: The present first part of the article develops the problem formulated by Ya. Z. Tsy\*pkin (Izv. AN SSSR. Otd. tekhn. n., Energetika i avtomatika, no. 4, 1960). Calculating and synthesizing sampled-data automatic systems can be reduced to consecutive solution of mathematical-programing problems on a digital computer included in the automatic system. In the authors' terminology, the calculation of an optimum system is a sequence of computing operations used for determining the optimum controlling actions within specified constraints; the

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ACCESSION NR: AP3003739

1

synthesizing is a determining of the system structure or the computer program that ensures the system control in accordance with the optimum action. An example of an automatic system with pulse-amplitude modulation is considered in several versions. It is noted that the constraints imposed on the system can be expressed as linear and quadratic equalities or inequalities. Orig. art. has: I figure and 26 formulas.

ASSOCIATION: none

SUBMITTED: 18Aug62

DATE ACQ: 02Aug63

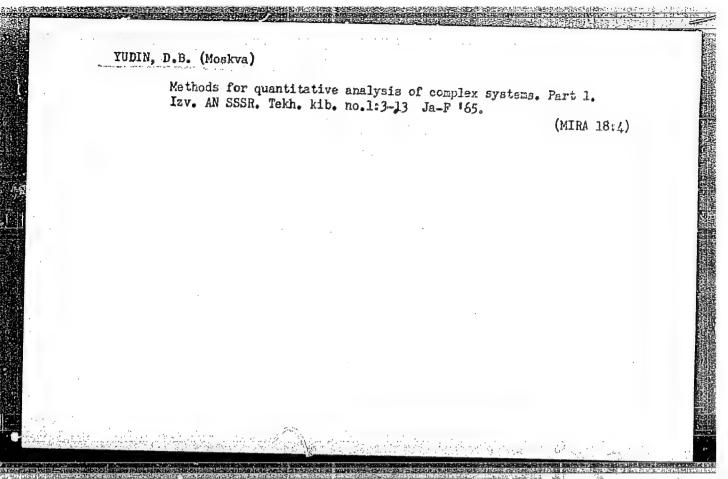
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NO REF SOV: 006

OTHER: 001

Card 2/2



L 38199-66 EWT(d)/T/EWP(1) IJP(c)

ACC NR: A.P6008514

SOURCE CODE: UR/0280/66/000/001/0003/0016

AUTHOR: Yudin, D. B. (Doctor of Technical Sciences, Professor; Moscow)

ORG: none

TITLE: Methods for the quantitative analysis of complex systems. Part II

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 1, 1966, 3-16

TOPIC TAGS: mathematic method, random process, quantitative analysis, system

ABSTRACT: This is a continuation of a discussion of mathematical programming methods, a method for the investigation and the synthesis of complex systems (Metody kolichestvennogo analiza slozhnykh sistem, I. Izv. AN SSSR, Tekhnicheskaya kibernetika, 1965, No. 1). Specifically considered in this article are different varieties of random search. Ways are studied for the rational organization of the process of seeking a global extremum in multi-extremum problems. The general concept of random search methodology is explained and various forms of discrete stepwise and continous random search techniques are considered, with particular attention to the elements of teaching and adaptation they contain. It is shown that many of the random search methods that have been described in the literature are essentially engineering methods. Other nontrivial mathematical methods of random search are

Card 1/2

L 38190-66 ACC NE AP6008514 analyzed and cases are considered in which the global minimum is significantly "deeper" than the local minima and in which more effective techniques for shortening the mean search time for the global extremum are employed. The author wishes to thank R. Z. Khas minskiy, E. M. Vaysbord, and L. Kh. Sokolovskiy for their helpful remarks and comments on the material in this paper. Orig. art. has: SUB CODE: 12,14/ SUBM DATE: 11Nov65/ ORIG REF: 018/ OTH REF: 005 2/2mLP

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New trends program illus.,	in linear p mirovanii) M biblio., in	programming (Novyye na Noscow, Izd-vo "Soveta ndex. Errata slip ins	apravleniya v lineynom skoye radio", 1966. 524 serted. 9,400 copies no	intedi
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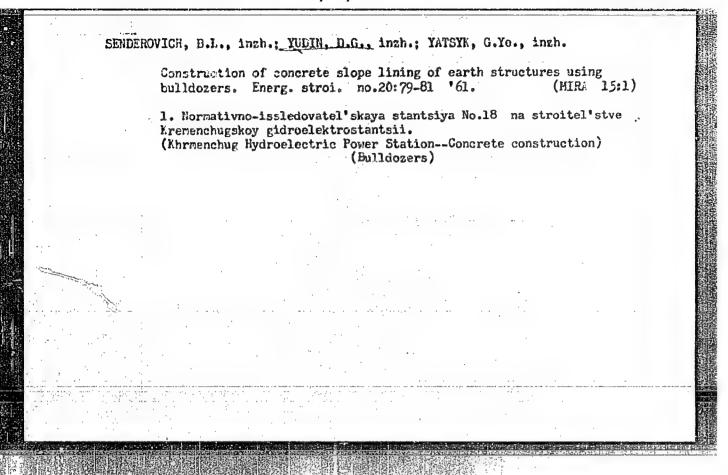
# ACC NR: AM6029189 algorithms for solving various classes of piecewise linear problems, et cetera. The book is intended for a wide circle of mathematicians engineers, and economists working in the field of mathematical economics, automatic control, studies of military operations, and systems engineering. It is assumed that the readers are familiar with the basic concepts, qualitative results, and computational algorithms presented in the previous book. The book may also be used by graduate students and other students specializing in computational mathematics, mathematical economics, automatic control, operations research, and the planning of large complexes and systems for modern technology. TABLE OF CONTENTS /Abridged/: Preface -- 5 Ch. 1. Transportation networks and transportation problems -- 7 Linear programming and theory of games -- 83 Ch. 3. Ch. 4. Parametric programming -- 137 Block programming -- 224 Ch. 5. Integer linear programming -- 340 Ch. 6. Stochastic programming -- 399 Cord 2/3

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YUDIN, David Borisovich; GOL'SHTEYN, Yevgenir Grigor'yevich;
IVANUSHKO, R.D., red.

[Problems and methods for linear programming] Zadachi i metody lineinogo programmirovaniia. Izd.2., perer. i dop. Koskva, Sovetskoe radio, 1964. 735 p.

(MIRA 18:1)



YUDIN, D. L.

"Effect of the Preliminary Strengthening of Material on the Microgeometry of Turned Surfaces." Sub 19 Jun 47, Moscow Order of the Labor Red Banner Higher Technical School imeni N.E. Bauman

Dissertations presented for degrees in science and engineering in Moscow in 1947.

SO: Sum. No. 457, 18 Apr 55

 MUDIE, D.L., kand, tekhn, nank, dots,

Increasing labor productivity in high-speed machining of wheel pairs using metal-cutting tools with chipbreakers. Trudy HIIT no.93: 94-124 \*57. (MIRA 11:4)

YUDIN, DANIIL, L'VOVICH

25(7)

PHASE I BOOK EXPLOITATION SOV/1215

Zobnin, Nikolay Pavlovich; Shishkin, Aleksey Alekseyevich; and Yudin, Daniil L'vovich

- Oborabotka metallov rezaniyem (Metal Cutting) Moscow, Transzheldorizdat, 1958. 256 p. 6,000 copies printed.
- Ed. (Title page): Zobnin, N.P., Doctor of Technical Sciences, Professor; Eds. (Inside book): Danilevskiy, V.V., Candidate of Technical Sciences, Docent, and Braylovskiy, N.G., Engineer; Tech. Ed.: Bobrova, Ye. N.
- PURPOSE: This book is approved by the Ministry of Higher Education, USSR, as a handbook for railroad transport vuzes. It may also be useful to engineers and technicians in plants and in railroad repair shops for rolling stock, wheels and track.
- COVERAGE: The book presents the theoretical fundamentals of metal cutting. The construction and operation of metal-cutting machinery

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# Metal Cutting SOV/1215 and instruments are described. The fundamentals of methods used in development of techniques of mechanical metal processing are discussed. The name of A.V. Gadolin is mentioned as having contributed to this field. There are 80 references, of which 74 are Soviet, 5 English and 1 German. TABLE OF CONTENTS: From the Authors Introduction Ch. I. Elements of the Geometry of Turning Cutting Tools [Single-point Tools] 10 1. Basic parts, surfaces and angles of cutting tools 10 2. Change of tool angles 14 Ch. II. Fundamentals of Cutting-tool Manufacturing Methods 3. Requirements for cutting tools Card 2/10

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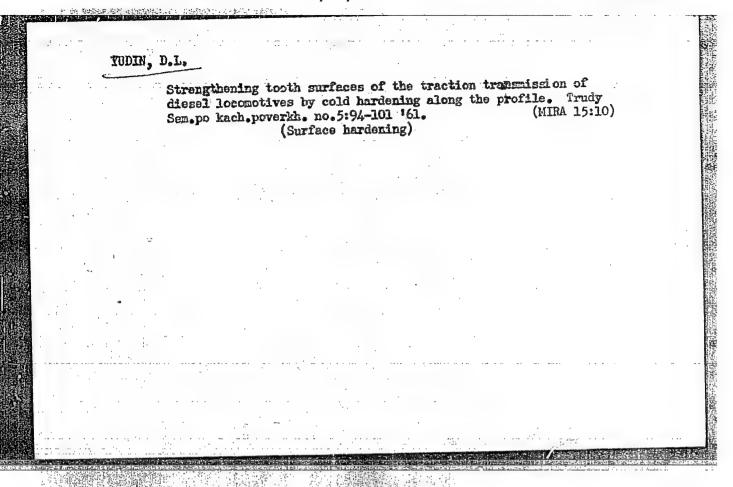
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YUDIN, D.L., dots., kand.tekhn.nauk; REZNIKOVA, H.P., kand.tekhn.nauk.
PORKACHEV, M.A., inzb.

Mechanical reinforcing of gear teeth along the whole profile. Elek.i tepl.tiaga 14 no.3:25-26 Mr '60. (MIRA 13:7)

1. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta.
(Gearing, Spar)



ZABLONSKIY, K.I., prof.; ZOBNIN, N.P., doktor tekhn. nauk, prof.;

YUDIN. D.L., kand. tekhn. nauk, dotsent; FILIPOVICH, S.I.,

insh.; FORKHACHEV, M.A., insh.

Stands for hardening treatment and strength testing of the traction transmission gearing of locomotives. Trudy MIIT no.159:75-88 '62. (MIRA 16:6)

(Locomotives-Transmission devices)

ZOBNIN, N.P., doktor tekhn. nauk, prof.; ROGOV, A.Ya., kand. tekhn. nauk, dotsent; KHAPKO, V.U., kand. tekhn. nauk, dotsent; YUDIN, D.L., kand. tekhn. nauk, dotsent

Effect of the cold working depth on the service life of axle press joints. Trudy MIIT no.159:89-98 '62. (MIRA 16:6)

(Car axles)
(Metals—Cold working)

ZOBNIN, Nikolay Pavlovich, prof., doktor tekhn.nauk; YUDIN, Daniil

L'vovich, dots., kand.tekhn.nauk; SHISHKIN, Aleksey Alekseyevich,
dots., kand.tekhn.nauk; ROGOV, Aleksandr Yakovlevich, dots., kand.tekhn.
nauk; REKUDANOV,P.N., kand.tekhn.nauk,retsenzent; SATANTSZV,Yu.S., inz.,
rod.; BOBROVA, Ye.N., tekhn. rod.

[Metal cutting] Obrabotka metallov rezaniem. Izd.2. Moskva, Transzheldorizdat, 1962. 299 p. (MIRA-15:6)

1. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta (for
Zobmin, Yudin, Rogov). 2. Rostovskiy institut inzhenerov zheleznodorozhnogo transporta (for Shishkin).

(Metal cutting)

ZABLONSKIY, K.I., prof.; YUDIN, D.L., kand.tekhn.nauk, dotsent; FILIPOVICH, S.I., inzh.

Methodology for the fatigue strength testing of the teeth of diesel locomotive gear wheels on a special stand. Trudy MIIT no.200:54-65 64. (MIRA 18:8)

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#### KARAPETYAN, G.O.; YUDIN, D.M.

Using the electron paramagnetic resonance method for studying the effect of gamma-radiation on phosphate glass. Fiz. tver. tela 3 no.9:2827-2834 S '61. (MIRA 14:9)

1. Gosudarstvennyy opticheskiy institut imeni S.I. Vavilova, Leningrad.

(Paramagnetic resonance and relaxation) (Camma rays) (Glass)

8/181/62/004/010/002/063 B108/B186

Karapetyan, G. O., and Yudin, D. M.

AUTHORS:

c. p. r.-investigation of the action of ionizing radiation

TITLE:

on glasses of the system Na20.B203.SiO2

Fizika tverdogo tela, v. 4, no. 10, 1962, 2647-2655

TEXT: Glasses exposed to Co gamma radiation were investigated with the e. p. r. method. The irradiation gave rise to a coloration of the the c. p. r. method. The irradiation gave rise to a coloration of the glasses, intensity and hue being dependent on the composition of the glasses. The F centers arising in the glasses under consideration are due to four different structural lattices. Sin. 286 0. RO. RO. RO. The Control of the glasses and consideration of the glasses. PERIODICAL: grass. The r centers arising in the grasses under consideration are due to four different structural lattices: SiO2, SiO2.2Na2O, BO3, BO4. The optical spectra of additional absorption of the glasses had three bands with their peaks at 310, 440, and 620 mm. Gamma radiation breaks covalent bonds in the glasses thus producing free electrons, and holes localized at the oxygen. The position of the electron trapping centers is known to be localized at the boron since hyperfine structure lines were, observed associated with the interaction of an electron with Card 1/2

Zivestigation of the electrical conductivity of vitreous semiconductors of the type As2Te3. A. I. Gubanov, T. F. Mazets (10 minutes).

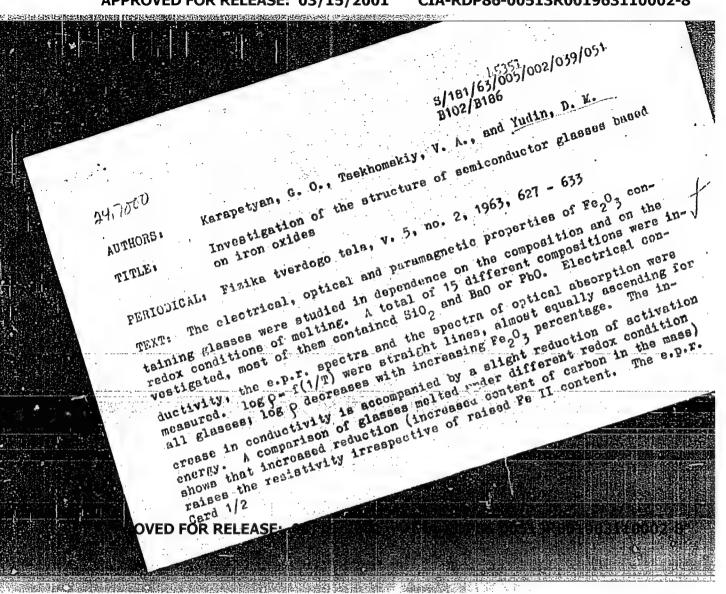
Study of semiconducting glasses by the electron paramagnetic resonance method. G. A. Karapetyan, V. A. Tsekhomskiy, Q. M. Yudin.

Semiconducting silicate glasses based on titanium oxide. Ya. A.

Semiconducting silicate glasses based on titanium oxide. Ya. A.

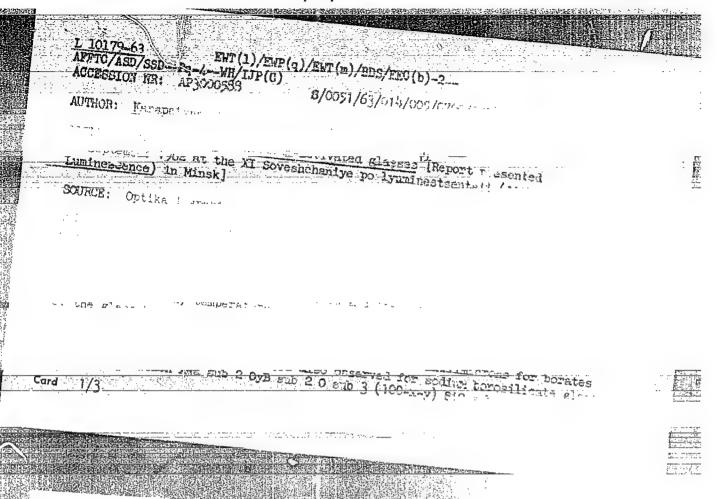
Kreznetsov, V. A. Tsekhomskiy. (Presented by V. A. Tsekhomskiy-15 minutes).

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

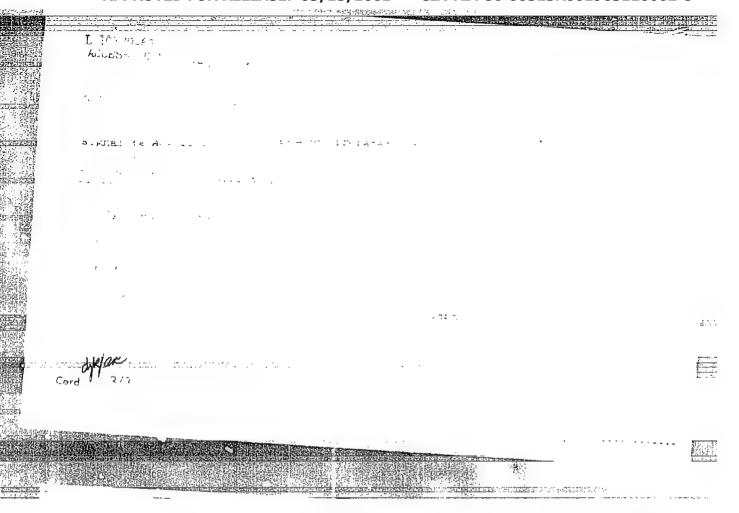


Investigation of the ... spectra were measured in fields of up to 6 koe. Resonance lines were observed at g-factors of 4.3 and 2.0; their intensity depended on the composition. If the carbon content is increased the c.p.r. lines fade out due to Fe 3+ > Fe 2+ transition; the Fe 2+ e.p.r. spectrum can be observed only at helium temperatures. The line with B=2.0 vanishes first. On investing that hoth in the mans of Rafi s gating the optical absorption it was found that both in the case of BaC and PhO content the blue transmissivity depends on the iron concentration. Concentration of the glasses investigated is due to the presence of Fe 3+ ions (3d 5) in octahedral configuration (coordination 6). Introduction of Al into the mass or substitution of SiO<sub>2</sub> by B<sub>2</sub>O<sub>3</sub> in BaO glass increases absorption and reduces conductivity. There are 5 figures ASSOCIATION: Gosudarstvennyy opticheskiy institut im. S. I. Vavilova, Leningrad (State Optical Institute imeni S. I. Vavilov, Lenin-SUBMITTED: September 26, 1962 Card 2/2

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ACCESSION NR: AP4034940

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AUTHOR: Karapetyan, G. O.; Stepanov, S. A.; Yudin, D. M.

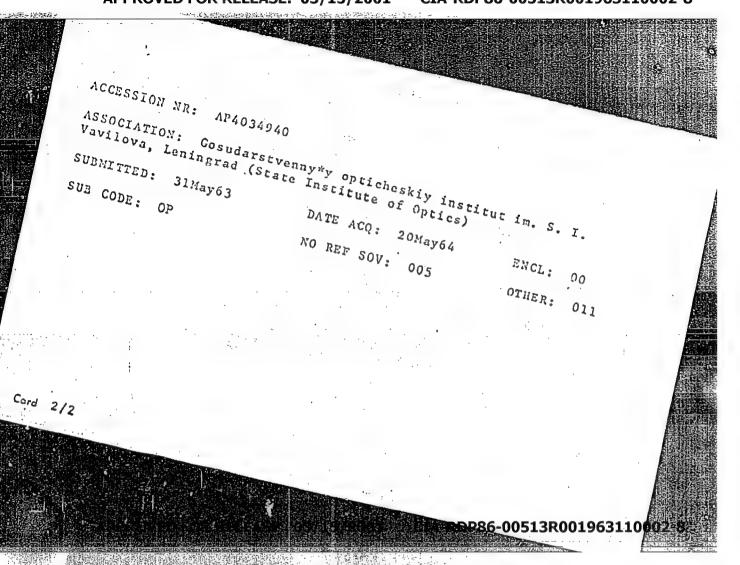
TITLE: Color centers in sodium alumosilicate glasses

SOURCE: Fizika tverdogo tela, v. 6, no. 5, 1964, 1531-1539

TOPIC TAGS: glass, sodium alumosilicate glass, color center, F center, radiation effect, radiation damage

ABSTRACT: The EPR and optical absorption spectrum of Na<sub>2</sub>0-Al<sub>2</sub>0 -Si0<sub>2</sub> glasses irradiated with gamma rays from a Co<sup>60</sup> source with a dose rate of 10<sup>-4</sup> r/hr was investigated. The experimental data obtained are analyzed in terms of models for the production of the traps found in the literature or proposed by the authors. The interpretation of the models is expected to be helpful in making detailed calculations based on the theory of molecular orbitals. Orig. art. has: 4 figures and 1 table.

Cara 1/2



KARAPETYAN, G.O.; KONDRAT'YEV, Yu.N.; YUDIN, D.M.

Use of the paramagnetic resonance method in studying the crystallization of glasses. Fiz. tver. tela 6 no.5:1554-1557 My 164. (MIRA 17:9)

1. Gosudarstvennyy opticheskiy institut iseni Vavilova, Leningrad.

ACCESSION NR: AP4037231

8/0153/64/007/001/0101/0105

AUTHOR: Avgustinik, A. I.; Sintsova, I. T.; Yudin, D. M.

TITIE: The precrystallization period in glasses of the K sub 2 0 510 sub 2 system

SOURCE: Ivuz. Khimiya i khimicheskaya tekhnologiya, v. 7, no. 1, 1964, 101-105

TOPIC TAGS: glass, crystallization, precrystallization, K sub 2 0 SiO sub 2 system, prenucleation group, rate, formation, K sub 2 0.2SiO sub 2, IR analysis, EPR analysis, quartz bond rupture, disilicate bond formation, microhardness, modulus, shear, sonic rate, glass strength, amorphous glass, crystalline glass, internal thermal stress

ABSTRACT: This study was conducted to explain the effect of the crystallizability of a glass on the rate and degree of prenucleation group (p-group) formation. Two glass of the K20-SiO<sub>2</sub> system were examined: A, containing 33.4 mol% K20, 66.6 SiO<sub>2</sub>, readily crystallizing as K20.2SiO<sub>2</sub>, and B, containing 19 K20 and 81.0 SiO<sub>2</sub>, having the least tendency to crystallize and approximating the cutectic between K20.4SiO<sub>2</sub> and SiO<sub>2</sub>. In the binary glass K20.SiO<sub>2</sub> changing the cooling causes a change in the fine structure as evidenced by IR absorption and electron paramagnetic resonance

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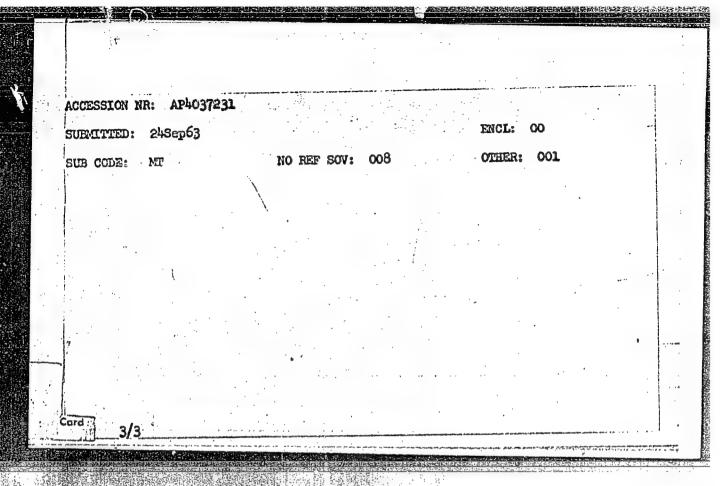
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ACCESSION NR. AP4037231

spectra: the increase in intensity at 980 cm<sup>-1</sup> and shift toward the shorter wave length indicates molecular vibrations in the formed groups; the resonance lines indicate runture of quartz bonds and disappearance of high silica content with simultaneous increase in the number and strength of the disilicate bond. As the holding temperature is reduced and as holding time is increased, the microhardness, modulus of shear, and sonic rate are increased in glass A. This increased strength results from a gradual transition from the amorphous to the more regular and oriented structure. The composition and structure of the p-groups formed approximate those of the crystalline phase formed by homogeneous crystallization. In the non-crystalline glass B no change was noticed in the IR spectra even after holding at 1100C for 26 hours. This further confirms that the rate of the p-groups formation determines the ability of a glass to crystallize. The decrease in microhardness upon prolonged annealing in this glass B is attributed to relieving the internal thermal stresses. "Graduate L. G. Lezarevich participated in the work." Orig. art. hos: 2 figures and 1 table.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut im. Lensovyeta Kafedra tekhnologii keramicheskikh proizvodstv (Leningrad Technological Institute, Branch of Ceramic Industries)

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 ACCESSION NR: AP4011485

S/0051/64/016/001/0063/0068

AUHROR: Karapetyan, G.O.: Ksendzatskaya, Yu.N.; Yudin, D.M.

TITLE: Investigation of the kinetics of formation of ZnS:Mn phosphor by the method of electron paramagnetic resonance

SOURCE: CPtika 1 spektroskopiya, v.16, no.1, 1964, 53-68

TOPIC TAGS: phosphor synthesis, manganese activated zinc sulfide, ZnS:Mn phosphor, photoluminescence, cathodoluminescence, manganese 2+, EPR, sphalerite, wurtzite

ABSTRACT: Despite the fact that there have been numerous investigations of ZnS-Mn phosphors, adequate data are still lacking on the kinetics of the synthesis process and on the formation of luminescence centers in phosphors of this type. The present work was devoted to investigation of the kinetics of formation of Mn activated zinc sulfide luminophors. There were studied the electron paramagnetic resonance spectra, the luminescence spectra and the intensity of luminescence under cathodic and ultraviolet stimulation as a function of the activator concentration, the synthesis temperature and the action of ionizing radiation. Mn activated ZnS phosphor is particularly suitable for investigation by the method of electron paramagnetic resonance

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#### ACC.NR: AP4011485

in view of the fact that the EPR spectrum of the Mn ion varies greatly with changes in lattice structure. The specimens were prepared in the form of powder in scaled quartz tubes 3 mm in diameter, the Mn<sup>2+</sup> concentration was varied in the range from  $10^{-5}$  to 8 x  $10^{-4}$  g/g; the heating temperature was varied in the range from 780 to  $1200^{\circ}$ C; the heating time in the range from 5 to 30 min. The EPR and luminescence spectra are reproduced in figures. In the range of low ( $10^{-5}$  g/g) Mn concentrations the manganese luminescence spectrum does not undergo significant changes with variation in heating conditions, but at higher Mn concentrations significant alterations are observed. These changes are attributed, on the basis of the experimental data, to change from the sphalerite to the wartzite structure with increase of the heating temperature. The experimental results indicate moreover, that the MPR method can be used for investigating the rate of formation of crystals, the character of the crystals and the conditions of penetration of the activator into the crystal phosphor. Originartines: 5 figures and 1 table

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ORG: none	6M
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1.0048)-// 1.000 ACCEPTION AND APPORTUNE AUTHOR: Lakharov, V. K.; Yidin, P. W. TITIF: Investigation of glasses with chromous by the boonth: Fizika tverdogo tela, v. 7, no. 5, was year TOPIC TAGE: EPR spectrum, glass property, slab system, small policy ABSTRACT: This is a continuation of earlier EFR studies of glasses with . . . trivalent chromium (Opt. : spektr. v. 35. 70, 1003. The present investigation had for its purpose to check on the values of the g-factors, which in some wases were found to be different from those calculated in the earlier paper. Measurement of a glass with composition (all molar percent) 504 P-Os. 74 410 val es .. 's A spin Hamiltonian, wave functions, and a scheme for the spin sublevels of the Cramb ion are proposed to reconcile these values of the greaters G. O. Karapotren Par Li . . The wite 1188: 2 Tientens seul e e ....

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ASSOCIATION: Gosudarstvennyy opticheskiy institut im. 5. I. Vav.
(State Obpical Institute)
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